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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/587,164

06/02/2000

Richard Foltak

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7344

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7590

06/03/2004

MARGER JOHNSON & MCCOLLOM PC
1030 SW MORRISON STREET
PORTLAND, OR 97205

EXAMINER

AGDEPPA, HECTOR A

ART UNIT

PAPER NUMBER

2642

DATE MAILED: 06/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/587,164

Applicant(s)

FOLTAK ET AL.

Examiner

Hector A. Agdeppa

Art Unit

2642

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 and 8-27 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 8-27 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

1. This action is in response to applicant's amendment filed on 3/5/04. Claims 1 – 6 and 8 - 26 are now pending in the present application. **This action is made final.**

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

2. Claims 1 – 6 and 8 – 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 5,239,542 (Breidenstein et al.) and US 6,327,508 (Mergard).

As to claim 1, Breidenstein et al. teach a TDM switching system having a memory for storing various state and protocol-specific tables/matrices read as the claimed memory. (Abstract, Col. 4, lines 34 – 53) Breidenstein et al. also teach a time

slot interchange (TSI) 10 which separately or in conjunction with processor and memory 16 receive and transmit line signaling, read as the claimed trunk controller. (Figs. 1 and 4, Col. 2, line 65 – Col. 63) Breidenstein et al. also teach that processor (and memory) 16 constitute a state machine which by accessing/executing the above-mentioned tables conducts line signaling in the TDM system read as the claimed device processor, once a specific signaling type is determined to be used over a certain trunk/circuit. (Col. 3, line 6 – Col. 5, line 35)

What Breidenstein et al. do not teach is the use of dynamically configurable signaling templates. Breidenstein et al. instead teach a system employing various set templates or tables according to the various protocols conversion may be needed for.

However, Mergard teaches a general purpose dynamically programmable state machine which allows for dynamically changing state machine functions through the use of masking and comparator functions. (Abstract, Figs. 3 and 4, Col. 2, lines 29 – 50 of Mergard) This masking and comparator functions, specifically operate as the claimed dynamically configurable set of signaling templates since they define the different values which make up a template or table. (Col. 4, line 46 – Col. 6, line 23 of Mergard)

It would have been obvious for one of ordinary skill in the art at the time the invention was made to have implemented a dynamically configurable state machine/set of templates in the invention of Breidenstein et al. inasmuch such a feature is now old and well known in the art and it is the obvious extension to static state machines/templates. The motivation for this is simply that less protocol/signaling prediction is needed when dynamic configuration is available. The technology taught by

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Breidenstein et al. is merely older and it would again be obvious to update it with the more flexible dynamically programmable aspect taught by Mergard. The end result functionality of the state machine taught by Mergard is identical to the one taught by Breidenstein et al. and so could obviously and easily be implemented in the system of Breidenstein et al.

Moreover, Mergard teaches the ability to program new values, inputs, terms, and in the context of Breidenstein et al., then, new templates. This functionality involves enabling and disabling desired parameters which is analogous to having a new template override an older template.

As to claims 2 – 5, it would be inherent or at the very least obvious for one of ordinary skill in the art to be able to delete or insert needed templates in the system of Breidenstein et al. inasmuch as Breidenstein et al. contemplates providing conversion for many protocols depending on system type, country of use, etc. (Col. 1, lines 15 – 50 of Breidenstein et al.). Therefore, any system utilizing templates according to these various protocols would first have to be uploaded/inserted. And if a protocol becomes defunct or is no longer used, there would be ample motivation in terms of resource/memory efficiency to allow for deletion of its associated template.

As to claim 6, Breidenstein et al. teach detecting and re-generating tones and line signaling and therefore it is inherent that a DSP would be needed for this purpose. (Fig. 5A, Col. 1, lines 8 – 15)

Also, Breidenstein et al. teach the above in relation to incoming and outgoing calls. (Abstract) inasmuch as it handles both incoming and outgoing trunks.

As to claims 8 – 11, see the rejection of claims 6 and Fig. 5A and Col. 4, line 34 – Col. 7, line 14 wherein characters represent the various states and subroutines available and represent the various instructions (directives) which are used to reference the specific protocol and effect the appropriate action.

As to claims 12 – 14, 16, 18, 20 – 27, see the above rejection of claims 1 and 7.

Moreover, Breidenstein et al. has been discussed above and further teach that the templates/protocols are identified by a numbering plan and/or circuit type as well as by screen class. Any of these identifications read on the claimed template “name.” Moreover, there must be some way to identify and differentiate between the various protocols contemplated in Breidenstein et al. so that the appropriate signaling protocol may be used according to what is desired and what type of signaling is received. It is further inherent that a new template would have a new name assigned to it. Otherwise there would be no way to differentiate between one template and another. Clearly there would also, inherently be some means and method for assigning that name.

As to claims 15 and 17, Breidenstein et al. teach both a first and second controlling means wherein the first receives signaling according to a first protocol, and the second translates/outputs the signaling into a common or other protocol for signaling transmission. See also the rejection of claim 7.

As to claim 19, it would have been obvious for one of ordinary skill in the art at the time the invention was made to have included such a reporting/notification feature in the system of Breidenstein et al. Reporting and notification of errors is extremely old

and well known in the art and is merely a user-friendly option that a system designer could choose to add to a system.

Response to Arguments

3. Applicant's arguments filed 3/5/04 have been fully considered but they are not persuasive.

As to applicant's arguments regarding the Mergard reference not being of an analogous art, applicant must be reminded that Mergard was used to show the dynamic programming aspect of a state machine. For many years now, the telephony and computer arts have been and continue to be merged. Computers, programmable devices, etc. are old and well known in the telephony arts. In the context of the application for the present invention, Breidenstein et al. teaches a state machine that happens to be more or less static. Mergard simply teaches a state machine that is programmable. Both references already teach the base device/functionality.

As to applicant's second argument, as claimed, Breidenstein et al. and Mergard continue to read on the claimed invention. See the abstract of Breidenstein et al. wherein it states that not only are circuits identified, but that signaling messages are translated into common protocol independent messages used for establishing connections connected to the circuits. Therefore, different "templates" as discussed above may be applied to the circuits.

As to applicant's final argument, Breidenstein et al. teaches multiple templates and as discussed before, the aspect of Mergard relied upon is the dynamic programming aspect.

Conclusion

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hector A. Agdeppa whose telephone number is 703-305-1844. The examiner can normally be reached on Mon thru Fri 9:30am - 6:00pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ahmad F. Matar can be reached on 703-305-4731. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4700.

H.A.A.
May 26, 2004



AHMAD F. MATAR
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2700